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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,326	09/10/2004	Yasuhide Otsu	APA-0215	4008

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EXAMINER

HEINRICH, SAMUEL M

ART UNIT PAPER NUMBER

1725

DATE MAILED: 10/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/507,326

Applicant(s)

OTSU ET AL.

Examiner

Samuel M. Heinrich

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09/10/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 6-8 and 14-16 are rejected under 35 U.S.C. 102(a) as being anticipated by USPN 6,888,853 to Jurgensen. Jurgensen describes (e.g., Figures 4 and 20-37, column 37, line 38+) apparatus comprising plural light sources, plural optical fibers, scanning means, and control means which meet the structural limitations of the instant claims. The intended use of the apparatus, for cutting brittle material, does not impart patentability to the apparatus claims. Jurgensen describes (column 37, last five lines) the well known modulation and shaping control of the processing spot.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

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under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 7, 8, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,888,853 to Jurgensen as applied to claims 6 and 14 above, and further in view of US20030074096 to Das et al. Das et al describe (claims 19, 21, and 37) well known feedback from an emissivity measuring pyrometer for laser power control. The use thereof in the Jurgensen apparatus would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because the spot control is known in Jurgensen and because light intensity measuring means is known as disclosed by Das et al for controlling laser beam application.

Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP407328781A and JP410034364A and JP2002035979 in view of either JP2001228449 or USPN 6,888,853 to Jurgensen. JP407328781A and JP410034364A and JP2002035979 all describe the adjustment of optical characteristics of laser impingement by applying plural beams having different characteristics. JP2001228449 describes the well known use of bundled optical fibers in a laser machining device, and Jurgensen describes a bundled fiber laser processing machine which alters the surface of a work piece. The use of the selective beam application with a fiber optic bundle used for intermediate delivery of plural beams for brittle material splitting would have been obvious at the time applicant's invention was made to a person having ordinary

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skill in the art because the bundled beam delivery provides an efficient delivery of the well known plural beams.

Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP407328781A and JP410034364A and JP2002035979 in view of either JP2001228449 or USPN 6,888,853 to Jurgensen as applied to claims 1 and 9 above, and further in view of US20030074096 to Das et al. Das et al describe (claims 19, 21, and 37) well known feedback from an emissivity measuring pyrometer for laser power control. The use thereof in the brittle material splitting methods and apparatus would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because the variable spot control is known and because light intensity measuring means is known as disclosed by Das et al for controlling laser beam application.

Conclusion

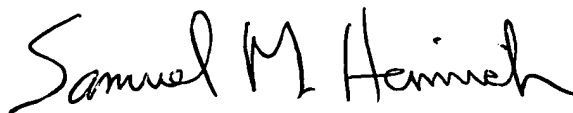
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited art pertains to plural beam application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel M. Heinrich whose telephone number is 571-272-1175. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Dunn can be reached on 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Samuel M Heinrich
Primary Examiner
Art Unit 1725

SMH